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Claims

What is claimed is:

1   1. In a computer controlled user-interactive display
2   system, a display interface implementation for providing
3   alternate access for physically impaired users to items
4   normally displayed in drop down menus comprising:
5   means for displaying a sequential set of drop down
6   menus, each having a plurality of selectable items;
7   selection means scrolled along each of said menus;
8   and
9   means enabling a user to selectively display as an
10 alternative to said set of menus, a hierarchical
11 arrangement of selectable items corresponding to items in
12 said set of menus.

1   2. The display interface implementation of claim 1
2   wherein:
3   the menus in said sequential set of drop down menus
4   sequentially vary from each other in scope; and
5   said alternative hierarchical arrangement of
6   selectable items is a tree of said items with sequential
7   levels of varying scope respectively corresponding to the
8   varying scope of said set of menus.

1   3. The display interface implementation of claim 2
2   wherein said selectable items in said tree are icons.

1   4. The display interface implementation of claim 3
2   wherein said icons are varied in size so as to be
3   optimized to diminish the effects of the individual
4   user's impairment.

1 5. The display interface implementation of claim 4
2 wherein said icons in said tree are varied in distance
3 from each other so as to be optimized to diminish the
4 effects of the individual user's impairment.

1 6. The display interface implementation of claim 4
2 further including:
3   means for tracking use characteristics of an
4 individual user; and
5   means responsive to said tracking means for
6 dynamically varying said sizes of said icons.

1 7. The display interface implementation of claim 4
2 further including:
3   means for tracking use characteristics of an
4 individual user; and
5   means responsive to said tracking means for
6 eliminating rarely used icons from said tree.

1 8. The display interface implementation of claim 6
2 wherein said means for tracking use characteristics of an
3 individual user includes:
4   means for counting the number of times that a
5 plurality of icons are selected; and
6   means responsive to said counting means for varying
7 the sizes of said icons relative to the selection counts
8 of said icons.

1 9.   A method for providing alternate access for
2 physically impaired users to items normally displayed in
3 drop down menus in computer controlled user-interactive
4 display systems comprising:
5   displaying a sequential set of drop down menus, each
6 having a plurality of selectable items;
7   enabling a user to select items from each of said
8 menus by scrolling along each of said menus; and
9   enabling a user to selectively display as an
10 alternative to said set of menus, a hierarchical
11 arrangement of selectable items corresponding to items in
12 said set of menus.

1 10.   The method for providing alternate access for
2 physically impaired users of claim 9 wherein:
3   the menus in said sequential set of drop down menus
4 sequentially are varied from each other in scope; and
5   said alternative hierarchical arrangement of
6 selectable items is arranged in a tree of said items with
7 sequential levels of varying scope respectively
8 corresponding to the varying scope of said set of menus.

1 11.   The method for providing alternate access for
2 physically impaired users of claim 10 wherein said
3 selectable items in said tree are icons.

1 12.   The method for providing alternate access for
2 physically impaired users of claim 11 including the
3 further step of varying said icons in size to optimize
4 said tree to diminish the effects of the individual
5 user's impairment.

1   13.   The method for providing alternate access for
2   physically impaired users of claim 12 including the
3   further step of varying said icons in said tree in
4   distance from each other to optimize said tree to
5   diminish the effects of the individual user's impairment.

1   14.   The method for providing alternate access for
2   physically impaired users of claim 12 further including
3   the steps of:
4   tracking use characteristics of an individual user;
5   and
6   dynamically varying said sizes of said icons
7   responsive to said tracking.

1   15.   The method for providing alternate access for
2   physically impaired users of claim 12 further including
3   the steps of:
4   tracking use characteristics of an individual user;
5   and
6   dynamically eliminating rarely used icons from said
7   tree responsive to said tracking.

1   16.   The method for providing alternate access for
2   physically impaired users of claim 14 wherein said
3   tracking use characteristics of an individual user
4   includes the steps of:
5   counting the number of times that a plurality of
6   icons are selected; and
7   varying the sizes of said icons relative to the
8   selection counts of said icons.

1   17. A computer program having program code included on a
2   computer readable medium for providing alternate access
3   for physically impaired users to items normally displayed
4   in drop down menus in computer controlled user-
5   interactive display systems comprising:
6   means for displaying a sequential set of drop down
7   menus, each having a plurality of selectable items;
8   selection means scrolled along each of said menus;
9   and
10   means enabling a user to selectively display as an
11   alternative to said set of menus, a hierarchical
12   arrangement of selectable items corresponding to items in
13   said set of menus.

1   18. The computer program of claim 17 wherein:
2   the menus in said sequential set of drop down menus
3   sequentially vary from each other in scope; and
4   said alternative hierarchical arrangement of
5   selectable items is a tree of said items with sequential
6   levels of varying scope respectively corresponding to the
7   varying scope of said set of menus.

1   19. The computer program of claim 18 wherein said
2   selectable items in said tree are icons.

1   20. The computer program of claim 19 wherein said icons
2   are varied in size so as to be optimized to diminish the
3   effects of the individual user's impairment.

1   21. The computer program of claim 20 wherein said icons
2   in said tree are varied in distance from each other so as
3   to be optimized to diminish the effects of the individual
4   user's impairment.

1 22. The computer program of claim 20 further including:

2   means for tracking use characteristics of an

3 individual user; and

4   means responsive to said tracking means for

5 dynamically varying said sizes of said icons.

1 23. The computer program of claim 20 further including:

2   means for tracking use characteristics of an

3 individual user; and

4   means responsive to said tracking means for

5 eliminating rarely used icons from said tree.

1 24. The computer program of claim 22 wherein said

2 means for tracking use characteristics of an individual

3 user includes:

4   means for counting the number of times that a

5 plurality of icons are selected; and

6   means responsive to said counting means for varying

7 the sizes of said icons relative to the selection counts

8 of said icons.

1 25. The display interface implementation of claim 6

2 wherein said means for tracking use characteristics of an

3 individual user includes:

4   means for counting the number of times that a

5 plurality of icons are selected; and

6   means responsive to said counting means for varying

7 the locations of said icons in said hierarchical tree

8 relative to the selection counts of said icons.

1   26.   The method for providing alternate access for
2   physically impaired users of claim 14 wherein said
3   tracking use characteristics of an individual user
4   includes the steps of:
5   counting the number of times that a plurality of
6   icons are selected; and
7   varying the locations of said icons in said
8   hierarchical tree relative to the selection counts of
9   said icons.

1   27.   The computer program of claim 22 wherein said
2   means for tracking use characteristics of an individual
3   user includes:
4   means for counting the number of times that a
5   plurality of icons are selected; and
6   means responsive to said counting means for varying
7   the locations of said icons in said hierarchical tree
8   relative to the selection counts of said icons.